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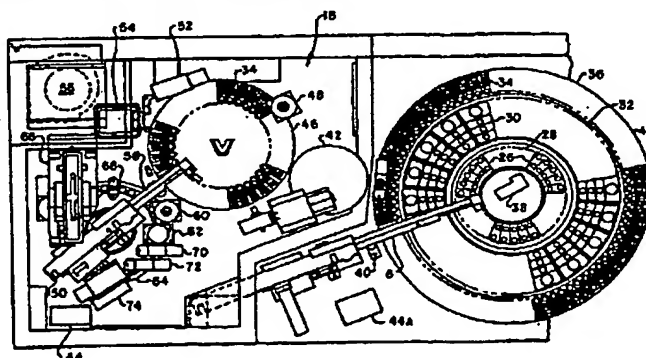
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| <p>26 Lindon Lane, Vernon Hills, IL 60061 (US). SPRONK, Adrian, M.; 2115 Witchwood, Lindenhurst, IL 60046 (US). WALKER, Edna, S.; 3231 West Warner, Chicago, IL 60618 (US). VAUGHT, James, A.; 908 Rosewood Court, Euless, TX 76039 (US). VICKSTROM, Richard, L.; 635 Birch Street, Algonquin, IL 60102 (US). WALKER, Donny, Ray; 308 Forestcrest, Coppell, TX 75019 (US). WATKINS, William, E., III; 1024 Tanglewood Drive, Cedar Hill, TX 75104 (US). WINTER, Gary, E.; 1407 Hillcrest Avenue, Hanover Park, IL 60103 (US). WOHLFORD, Robert, A.; 626 Mills Lane, Irving, TX 75062 (US). CLIFT, Gilbert; 4514 Live Oak, Mesquite, TX 75150 (US). CLOONAN, Kevin, M.; 14 South Valley View, Round Lake, IL 60073 (US). MITCHELL, James, E.; 184 River Road, Lake Barrington, IL 60010 (US). STANTON, Alyn, K.; 18 Little Bend Road, Barrington, IL 60010 (US). YOST, David, A.; 19617 Selby Avenue, Poolesville, MD 20837 (US). HILLS, David, B.; 3305 Swanson Drive, Plano, TX 75025 (US).</p> <p>(74) Agents: HOOPER, Matthew, R. et al.; Abbott Laboratories, CHAD 0377/AP6D-2, One Abbott Park Road, Abbott Park, IL 60064-3500 (US).</p> <p>(81) Designated States: AU, CA, JP, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).</p> <p>Published Without international search report and to be republished upon receipt of that report.</p> | | | |

(54) Title: AUTOMATED CONTINUOUS AND RANDOM ACCESS ANALYTICAL SYSTEM AND COMPONENTS THEREOF



(57) Abstract

An automated, continuous and random access analytical system, having apparatus and methodology capable of simultaneously performing multiple assays of liquid samples using different assay methodologies, and providing continuous and random access while performing a plurality of different assays on the same or different samples during the same time period, is disclosed. A method is also disclosed of operating an automated continuous and random access analytical system capable of simultaneously effecting multiple assays of a plurality of liquid samples wherein scheduling of various assays of the plurality of liquid samples is followed by creating a unit dose disposable and separately transferring a first liquid sample and reagents to a reaction vessel without initiation of an assay reaction sequence, followed by physical transfer of the unit dose disposable to a processing workstation, whereby a mixture of the unit dose disposable reagents and sample are achieved during incubation. The system is capable of performing more than one scheduled assay in any order, and assays where more than such scheduled assays are presented. The automated, continuous and random access analytical system is also capable of analyzing the incubated reaction mixtures independently and individually by at least two assay procedures.